MULTIPLE SCLEROSIS AND PSYCHOANALYSIS.*

A PRELIMINARY STATEMENT OF A TENTATIVE RESEARCH.

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My personal interest in what has been subsumed under the term "multiple sclerosis" began in 1900. At that time, working in the Vanderbilt Clinic with A. B. Bonar, some 60 cases were examined in great detail from the sensorimotor point of view, and a monograph on the disease was projected, the first approach toward which was published by one of us in 1904. This short study appeared as an inquiry into the then thought of etiologic factors and analyzed the general features in over 100 observations.[1] The necropsy material was quite limited, however, the patients having been drawn from polyclinic material, and when Müller's[2] excellent monograph appeared in this same year, documented on rich necropsy material, the rather ambitious program that had been drawn up was abandoned as projected.

Since that time, however, my collecting propensities have always maintained a special predilection for this interesting syndrome. I have become more or less sensitized to the problems involved. They have never been far from the focus of my interest and the many perplexities and difficulties have been the subject of much inquiry from clinical sources, the chemical laboratory, pathologic section and therapeutic endeavor.

So far as the pathologic pictures have contributed to the furthering of the little knowledge that we as yet possess, without burdening this short *resume* with too exhaustive an analysis, it has been learned definitely that disseminated foci, which may occur in the cerebrospinal pathways and arise from a variety of causes, may produce clinical pictures which on cross-section have many features that would entitle them to be diagnosed as "multiple sclerosis." These may be termed, for the purpose of this note, the *secondary types*, with the discussions concerning which this Society is fairly familiar. Certain cases of infection from a variety of organisms (influenza, poliomyelitis, lethargic encephalitis) and a special group of disseminated syphilitic encephalomyelitides offer especially interesting polemic material, attention to which has been called by a number of observers, notably Riese,[3] Schültze,[4] Klingman[5] and Spiller.[6]

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* Presented before the American Neurological Association, June, 1920.

[1] Jelliffe, S. E.: Multiple Sclerosis: Etiology, Jour. Nerv. and Ment. Dis., July 1, 1904.

[2] Die multiple Sklerose des Gehirns und Rückenmarks, Jena, 1904.

[3] Arch. f. Psychiat., 1919, vol. lx.

[4] Deutsch. Ztschr. f. Nervh., 1920, lxv, 1.

[5] Am. Arch. Neurol. and Psychiat., 1919, i, 39, 193. Ibid., 1919,, i, 219.

The new spirochete of Kühn and Steiner may be included here if finally verified. With these secondary types, mostly of infectious origin, however, we are not now concerned.

More and more it has come to be believed that a special type with a fairly distinctive pathologic foundation is recognizable. Many, perhaps most, of the so-called *primary multiple scleroses* are to be thought of in this connection, but neuropathology is not yet in a position to decide offhand even concerning this point.

The pathologic picture of what I take to be this group has been most exhaustively analyzed by Dawson,[7] Klingman and others, and it is with reference to this hypothetical series of cases that the present series of notes applies.

Here the chief pathological lesion seems to have its inception in a special type of disturbance of the vascular apparatus which is functionally integrated with the work being carried on in the different neural metameres. The minute histology of these changes I shall not discuss here. Klingman, Dawson, Cassirer and others have afforded the details for the conception. I simply wish to call attention to certain affiliations with another type of vascular alteration in which the detail of the histological picture is closely related, if not identical.

Even should it require an extensive polemic to decide concerning the identity of these changes the point at issue is not seriously modified. These changes are those lying behind what has been called the exudative diathesis and of which the studies of Cassirer[8] have given us a broad outline. The catatonic "Hirnschwellung" of Rieger and Reichardt[9] is one of the manifestations of this type of vascular dysfunction upon which special emphasis may be laid as well as to various so-called neurotic arthritides, skin exudates, asthmatic exudates, hay fever, etc. The relationship of these phenomena to the vegetative nervous system control and attendant psychological factors is the concept which is of interest in this research and which has a large and important background. This general background has been elaborated *in extenso* and made the basis of an attempt at a unified attack upon the whole problem of nervous diseases and a general dynamic pathology as well.[10]

Shifting for a moment now to physiological considerations, attention should be called to the generalization of what Sherrington[11] first termed the "action pattern." I need hardly refer to the automatic integrating work which is constantly going on in response to conscious and unconscious desires, to the complicated series of neural, vascular and biochemic integrations which, under the organization of the vegetative nervous system, are in constant working activity, carrying on the biologic work of satisfying necessary human cravings, the satisfaction of which means the maintenance of the individual and the continuance of the phylum.

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[7] The Histology of Disseminated Sclerosis, Rev. Neurol. and Psychiat., 1916, xiv, 285; Tr. Royal Soc., Edinburgh, 1916, pt. 3, No. 18, i, 517 (with complete bibliography).

[8] Die vasomotorisch-tropischen Neurosen, ed. 2, Berlin, Karger, 1912.

[9] Ueber "Hirnschwellung," Ztschr. f. d. ges. Neurol. u. Psychiat., 1911, iii, 1.

[10] See introduction to text of Jelliffe and White: Diseases of the Nervous System, 1919, 3d ed. Also see Brown, W. L.: Sympathetic Nervous System in Disease, 1920. Kempf: Autonomic System and Personality; Nervous and Mental Disease Monograph Series, 1919. Noel Paton: Nervous Regulators of Metabolism, 1919. White: Foundations of Psychiatry, Nervous and Mental Disease Monograph Series, No. 32.

[11] Integrative Action of the Nervous System, New York, 1906. Also see Childs: Evolution of the Nervous System, Chicago, 1920.

It was at this point some five years ago that I determined to learn, if possible, from the study of the unconscious thought processes, whether any information could be obtained whereby one could predicate whether something was amiss with the unconscious action patterns, and if so whether any correlations could be made between such faulty action patterns and the neurovascular integrations that would be called on in the attempt to carry these action patterns out or to control the resultant behavior.

Up to the present, then, the argument briefly stated is that in a certain type of "multiple scleroses" patients, certain vascular reactions occur which permit exudative and proliferative changes of a nature similar to those seen in certain exudative constitutional states known to be intimately related to vegetative nervous system disorders of a special type.

These foci are disseminated and follow no as yet understandable principle of localization. We assume, however, that the locus of distribution is in some way related to an action pattern of some kind. That the neural integrative mechanisms needed to carry out the action pattern is under a chronic state of postural tonus and that the vascular integration mechanisms which are required to supply the neural metamere to carry out the action pattern is under a particular and special form of stress.

The vascular alterations are known to be closely bound up with emotional stimuli. Hence the problem postulated is to ascertain if there are specific emotional stresses going on in the unconscious which may be correlated with the rest of the mechanisms here outlined.

For example, suppose the initial symptoms of a multiple sclerosis were those of a choroiditis with eye-muscle unbalance; then that these were followed some few years later by pyramidal tract symptoms chiefly involving the long flexors of the thigh and the extensors of the leg of the right side, making the movements of getting into an erect posture, going up stairs, kicking, etc., difficult. Now an investigation of the proprioceptive nerve supply of the ocular muscles involved in the unbalance and the postural tonus of these muscles as they pull upon the eyeball is imperative. What relation could a chronic pull from possibly unconscious activities have upon the vegetative control of the metabolic elements of the sclera, the choroid and possibly by extension to the retina? The pathologic picture here needs investigation. So far as I can find it never has been done. What part does the retina play in this unconscious fixation?

Then as for the muscle groups involved in the pyramidal tract impairments. The character of the defect tends to point to certain localizations in or about the chief integrating pathways to permit certain types of action. What is this action pattern? Are there chronic postural tonicities under constant unconscious emotional stimuli that may impair the metabolism of the reflex vegetative arcs involved in the action patterns? If so, how are such unconscious emotional strivings to be recognized, evaluated and finally correlated with the rest of the situation?[12] Such is a partial statement of the bare outlines of the problem.

The details and the significance of the work of Pavloff, Cannon,[13] Kempf[14] and others working in this newly opened field I shall assume is known to all here present—even the polemic material concerning the validity of the generalizations that definite and predicable changes in the entire physiologic activities as well as morphologic alterations of the cells of the body may be occasioned by emotional reactions, such as hunger, fear, rage, pain, etc., I shall also assume you to be thoroughly acquainted with. I need not go over the arguments. They are obvious.

What the early studies of these investigators proved was that certain correlations proving the general validity of the position here taken are capable of being experimentally repeatable and verifiable in lower animals. The vast literature of psychiatry shows that similar correlations, though more intricate, are true for human beings.

My material is necessarily limited. It has been difficult at times to get the necessary coöperation. Either the patients were not suited for the studies which I hoped to make, because of the mental deterioration so frequently observed in multiple sclerosis, or they lacked the time, or they were not sufficiently intelligent to enter into the investigations in any hopeful sense.

My material in this experimental research is drawn from five patients, only two of whom offered some approach to helpful coöperation. The most fruitful material was obtained from these two patients who could continue psychoanalytic procedure for several months.[15]

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[12] Sherrington: Proprioceptive Nerve Supply of Ocular Muscles, Brain, 1918, li, 332. Postural Activity of Muscle and Nerve, Brain, 1915, xxxviii, 191. Kempf, loc. cit.

[13] Fear, Rage, Hunger and Pain and the Nervous System, New York: D. Appleton & Co., 1919.

[14] The Autonomic System and the Personality, Nerv. and Ment. Dis., Monogr. Ser. 28, New York and Washington, 1919. Psychopathology, St. Louis, 1920.

[15] Jelliffe: Technic of Psychoanalysis, Nerv. and Ment. Dis., Monogr. Ser. 26, New York and Washington, 2d ed., 1920.

What developed? In the first place there was an extremely interesting uniformity in the character of the dream material:

1. All of the patients gave me very definite archaic symbolizations.[16] We are scarcely able yet to go far into this nor into the as yet incomplete generalizations as to the significance of this material as bearing on the thwartings of the cravings of the patients and the influence of these thwarting on the neural mechanisms of the action patterns and of the metabolic upkeep.

Yet we must consider to some extent such things as these definite archaic symbols, since they may have a special significance in our measurement of the affective disturbances contributing to the patient's illness. Any therapeutic measure must be based on some notions of exactness. I think it was Plato who was among the earliest to insist on the value of the reduction to measurements in some form of exactness in science. Yet in the realm of psychic difficulties and the impairment of the nervous system that lies so close to this that the two are inseparable, we have been most hampered by inexactness and difficulty of precise measurement and definition. It is needless to say that this does not pertain to the psychic side of the equation alone, for we are still too far away from any complete exactness of measurement on the purely physical side. How many centuries, for example, will have to elapse before scientific accuracy has become so refined or so well extended that all the physical factors which enter, both as cause and effect, into the disease picture at any one time in multiple sclerosis could really and all together be taken into account? While we are examining the renal output have we measured the registration of the disease process which pulmonary respiration might have given or the influence of the pulmonary intake or the facts which might have been discovered through sweat-glands or heart action or muscular postures or any other part of the vast field of bodily registration?

In the science of physics there are already certain well accepted mass units by which general physical facts may be determined and defined. In the activities of the living functioning human body we have only mastered a few. Experiment is multiplying these, but necessarily slowly, and meanwhile these processes, including those of disease, go on in large part unobserved and unmeasured. It is here that we cannot afford to neglect any new system of measurements which may have been discovered and been formulated in the psychologic realm. Not that these can claim a completeness which is present in the physical realm. That would not be possible in a realm, the psychic, which is limitless in comparison even with the multiplicity of the forms of body activities. Neither can it claim any hard and fast precision.

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[16] Jelliffe and Brink: The Role of Animals in the Unconscious, Psychoanal. Rev., July, 1917, iv, 253.

Yet from the nature of psychic activity, be it in thought or feeling and their numerous intergradings, there is a unit of measurement which is ready at hand. Thought and feeling have always tended to express themselves in symbols. These I have called energy carriers.[17] They may be conceived of as groupings of the sum of the affects and the mental processes stimulated by this affect, related to any object in the environment and the personal output of energy, corresponding to biologic needs, toward this object. The symbol becomes therefore the picture of the individual comprehension of any object or situation plus his energy activity toward it. Any symbol, therefore, chosen by the mental life, conscious or unconscious, stands as a chosen mass unit which measures the energy involved in any situation for which the symbol is used. May it not also be more than a mere measurement, for it may serve as well to define and locate this energy in the individual's grade of development or the level of his being at which this energy expenditure is made.

The psychotherapist is supposedly equipped with such a knowledge of the history of human development in terms of the individual's relation to his social environment that he can tell what are the forms of activity, of energy output demanded by the society in which the patient happens to live. He is able to define the higher intellectual form of the symbol by which the individual may seek free and effective expenditure of his energy to satisfy his personal requirements. This on the higher levels means the building up and healthy utilization rather than the tearing down of his machine, the body or some portion of it, in our case, as the spinal cord. If then the dreams reveal that in the unconscious, which is the larger portion of his mental life, he is utilizing not a symbol which is thus expanding opportunity and giving freer vent to energy, but one which refers to a long past no longer socially useful, may it not be seen that something is wrong?

At a remote archaic age when thought was simpler, feeling found its action pattern pathways more simply and more readily and the demands of a more complicated social standard did not exist. Now, however, thought, elaborating with the progress of culture, has built up a far more complicated form of demand. In order to keep pace with this, the body has had to learn through the widely extended psychic symbolism, to distribute its energy on many pathways, utilizing again the symbol for such energy expenditure. Now if it is seen through the dream that the symbolism, that is the picture of the individual's interest, confines itself to the simpler, more condensed archaic form may it not be conceived to indicate that the individual has abandoned (regression) or has never attained (fixation) the higher levels. He has no lack of feeling, of affect, but its ways of discharge are confined. The energy that it represents cannot find healthy outlet. What more natural then than that there should have resulted from fixation or regression to such a level an infusion of energy into bodily pathways, a refilling of old channels which culture has relieved by the long building up of the wider mental activity?

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[17] Jelliffe: The Symbol as an Energy Container, Jour. Nerv. and Ment. Dis., December, 1919, l, 540; Tr. Am. Neurol. Assn., 1919.

These old action pattern pathways in the somatic territory have normally their sufficient task. In the well-developed individual the distribution of energy through widening of the symbol, the "soul" or "spiritual" development, has left the proper safe amount of functioning, of energy carriage, on any one of them. If, however, they receive such reanimation and reinfusion from the blocking of the higher pathways it can readily be seen that disaster may result. It is the confined power that destroys instead of running the engine.

Since, then, it is impossible yet to measure or accurately to locate the causes of the vascular exudative phenomena by employing purely physical concepts, it is at least justifiable to examine the psychic symbol with all they reveal of energy blocking, the attempts to use wornout ways of thinking and feeling, the reaching toward environment by clumsy primitive tools instead of through efficient modern methods. In the recognition of such symbols and in their use as measurements we ought to get some more definite and comprehensible idea of the struggle the energy is making and of the ravages it is causing, and why. Experience with the multiple sclerotic patient in psychoanalysis shows that this is a handle whereby the problem can be practically attacked with him and wherein also he in his reëducation can take hold to make a readjustment.[18]

2. Furthermore, in all of the patients there was extremely violent hate material held under the most forced repressions. None of the patients had freed themselves from the most infantile types of fixation on father or mother images. This might have been surmised from the characteristic "hysterical" personality of so many of these patients, using this word in the old sense.

3. For those who have taken the time or trouble to investigate the unconscious and are at all acquainted with the present-day conceptions I might add that very marked sister and brother fixations were present.

4. Sadistic anal erotic complexes were striking. These are intimately correlated with the unconscious hate situations.

5. The unconscious narcissistic homosexual components were found in all cases under extreme repression.

In all of the patients this last had produced the fear of the opposite sex and had made marriage a nightmare or an impossibility—but none of the patients had had the courage to risk social censure and free themselves from what they projected as an intolerable burden. They thus repressed their hatred and made futile unsuccessful compensatory attempts.

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[18] Jelliffe: The Vegetative Nervous System and Dementia Precox, New York Med. Jour., May 26, 1917.

I would like to present very briefly one small sample of the material which has given rise to the summary of findings just made. Thus one patient with a marked paraplegia, with foci in the lumbar cord, dreams the following archaic mythological fragment "*of a magnificent specimen, half horse above and half man below. He is struck with the magnificence and power of the lower extremities. This centaur-like being approaches a woman who fears him, but then acquiesces in his intentions, the horse part of the body having become less pronounced. It approaches her from the rear and would have intercourse, but by the vagina. There is no orgasm, but intense excitement.*"

These particular symbolizations which I have mentioned give examples of the intensified and compressed energy repressed to a very low level, which ought to be aroused to action to satisfy organic needs by bringing these into better relation with the environment. That at least is the only healthy action of energy. Here the energy is aroused but seeks to satisfy itself with goals which are no longer part of reality, or in relations which would be no longer of actual service to the individual in his adjustment to environment. They are the substitution therefore of fantasy rather than reality objects and situations. This does not give outlet and must drive the patient into the direction of a psychosis or, as in these cases, animate to excess body channels of an older level of activity. This makes it necessary for them to carry a task which is too heavy for them. Instead of the lighter weight of function, then, which ordinarily belongs to the spinal cord, it is asked to sustain an additional energy drive and breaks down. Enough of this energy, however, still remains in the psychic sphere to create the dream picture just given. The very nature of the picture and the features of the dream show that it cannot become the sufficient carrier of the energy, the pathway for its discharge. It is true that the dream is an aid in itself to the discharge of energy still lingering at lower levels but only to a limited extent. A more helpful dream is one that presents more of the progressive forward tendency and is accompanied in the waking life also by a greater ability to utilize adult, highly cultural levels of activity for energy discharge. Notice at the end of this dream the indication of its purely fantasy, non-effective character: "*There is no orgasm but intense excitement.*"

It can be conceived that there was a time in development when what we now call an archaic level, a more bestial[16] or an animal level formed the highest cultural level of discharge. Let us say for argument that it was merely in that period of human history when man's own form was grosser, his attention to this physical life less modified, less refined. Such an archaic repetition and choice of animal forms in the dream may represent this more animal nature of man or even a period when perhaps the life of animal and man was more closely associated than now; and when man, at least, like the child of today, felt less distinction in feeling and form and individual satisfaction from the animals about him than he does today. He attributed to the animal more identity of experience and feeling than would be possible for the adult today. The most humanized adult would have to confess today to some trace yet of this amalgamation even in his conscious thought. Clearer traces of the strength of such an amalgamation of conception, of the admission of animals freely to thought and feeling lie in those tales of ancient Greece and Rome which have been embodied so charmingly in Ovid's writings. He wrote in a later critical literary age, when such beliefs were relegated, among the most cultured at least, only to the poet's fancy. But he really spoke of and for an age that had hardly passed away. Early belief had represented a more serious mingling of human and animal experiences, at least in man's fantasy, human desire seeking itself in animal and through animal form. Poetry, especially such poetry of less trammelled Greece, could still take up such desire and open the gates for much of the energy expression which still lingered at such layers. Today, however, energy that tarries at such levels is blocked. Thanks to literary preservation we still have Ovid, and perhaps he should form more often part of the patient's curriculum for reading. He offers as it were a horizon toward which the mind looks out in its efforts to broaden its vision, more to broaden its scope of action.

The body's needs, our organic cravings, are very ancient. The mind is the sum, a constantly increasing one, of feelings and reckonings, thought permutations and communications concerning the needs and the feelings associated with them. *It is the organizer of all phyletic experiences.* This mind or psyche has always been at work casting and recasting symbols which represent shifting paleopsychologic horizons,[19] widening vision, greater power and greater satisfaction through extension of horizons. The ability to look bravely out at each such paleopsychologic horizon and then mentally to cast and recast until that is in turn enlarged into another, represents progress and it represents health and lessening of inner tension through outer expression. Without this, thought and feeling become caught, fossilized in fixed layers, yet with this difference from geologic fossils—that in the mental world the fossils still live. The unreleased energy strains, struggles, and pulls whatever of individual striving and effort may have escaped back to its level or sorely divides the individual so that only partially effective activity is possible on higher levels and a large part of the energy tears and destroys at the lower level. Either it is dragging at the personality and forcing it into separateness from the world in the fantasies of a psychosis or it is allowing its destructive activity on some somatic pathway as in these multiple scleroses cases.

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[19] White, W. A.: The Contribution of Modern Psychiatry to General Medicine, Osler Memorial, New York 1919, p. 1228. Also Foundations of Psychiatry, loc. cit.

Energy means dynamic strength and this must exercise itself in one direction or another. Thus the necessity to open the horizon and then extend it again and yet again, which is the unending task of culture in the service of perfect health, or perfect health in the service of culture. For this there is no other tool than the symbol. This has been spoken of as an instrument for measurement, a mass unit. It is also a tool for forging ahead and maintaining the health of the whole personality, body and mind. By it the mind for itself and for the body gathers up the energy, lifts it out of its discarded level of an earlier passing or long passed culture, sketches the breadth and meaning of the new level and drives ahead into this.

Just how these compensatory efforts are prevented from getting out as compulsion neuroses[20] or a chronic neurosis of some type would make an interesting field for speculation; or looking at the situation from the point of view of making the body the scapegoat of the spirit, why do not these patients dissociate their conflict—develop a psychosis even if mild—and save the bodily structures. The catatonic makes an effort in this latter direction, but even then fails.[21] Mysticism and religion are more successful.

Claude Bernard[22] tells us that he hopes "some day the time will come when the physiologist, the philosopher and the poet will talk the same language and understand each other." I have often wondered if Hawthorne in the *Scarlet Letter* had not offered a striking illustration of the partial fulfilment of this wish of the great French physiologist when he wrote: "A bodily disease which we often think of as a thing apart and separate may, after all, be but a symptom of an illness in the spiritual part of our nature."

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[20] Jelliffe and Zenia X.: Psychoanalysis and Compulsion Neurosis, Psychoanal. Rev., April, 1920, vii, 134; Compulsion Neurosis and Primitive Culture, Psychoanal. Rev., 1914, i, 361.

[21] Kempf: Mechanistic Classification of Neuroses and Psychoses Produced by Distortion of Autonomic Affective Functions, Jour. Nerv. and Ment. Dis., August, 1919, l, 105.

[22] See Preface to Kraus, Fr.: Die allgemeine und spezielle Pathologie der Person, Klinische Syzygiologie, Thieme, Leipzig, 1919.